



Addendum

Addendum to “Description, accessibility and usage of SOIR/Venus Express atmospheric profiles of Venus distributed in VESPA (Virtual European Solar and Planetary Access)”

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The reference paper describing the SOIR data service available through the VESPA portal is Trompet et al. (2018). This data service contains an updated version of the profiles already available previously for AERO (aerosols), CO₂, CO, H³⁵Cl, H³⁷Cl, HF, SO₂, H₂O, and HDO following Mahieux et al. (2023a, 2023b). The previous version was w23.00 (<https://doi.org/10.18758/71021089>), while the latest version in 2024 is w24.00 (<https://doi.org/10.18758/71021090>).

The main differences over the vertical profiles in the new version regard the accuracy of the fits, the extent of the database – i.e., more observations are included, and several minor changes to the retrieval code. We refer the reader to Mahieux et al. (2015a, 2015c, 2015b) and Vandaele et al. (2016) for the description of the old version and to Chamberlain et al. (2020) and Mahieux et al. (2023a, 2023b) for the new version.

The aerosols remain unchanged. Still only the version of w23.00 is provided.

The data service now contains as well other species as OCS, CS, CS₂, SO₃, and detection limits for H₂S, HOCl, H₂CO, O₃, NH₃, HCN, N₂O, NO₂, NO, HO₂ (Mahieux et al., 2023a, 2024).

The file names have changed from version w23.00 to w24.00 as it contains a version number (for instance: *Orbit3082.2.HCN_1_w24.00.xml*). The previous dataset (without version number) corresponds to version w23.00 while the current version is w24.00. The files containing the aerosols (AERO) are still those from version w23.00 and thus do not contain a version number.

In addition, the SOIR spectra are not available through the PSA archive (which still contains an old version) but through the PI Institute website; visit <https://planetary.aeronomy.be/venus>.

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